The National Academies of
SCIENCES • ENGINEERING • MEDICINE

STANDING COMMITTEE ON USE OF EMERGING SCIENCE FOR ENVIRONMENTAL HEALTH DECISIONS

Committee Biographies

Robert Newman (chair) is a pediatrician with more than 25 years of experience in Global Health and Development as a leader, manager, policy maker, epidemiologist, program implementer, researcher, and clinician. He has particular interests in malaria, HIV, TB, immunizations, NCDs, health systems development and transition, maternal-child health, health security, and One Health, and has worked extensively in Africa, the Americas, Asia, and Europe. Prior to his current role as an independent consultant, he was Vice President and Global Head for Tuberculosis at Johnson & Johnson Global Public Health, where he led enterprise-wide efforts to achieve a world free of the burden of TB. From 2015-2017, Dr. Newman served as the Country Director for the United States Centers for Disease Control and Prevention (CDC) in Cambodia, overseeing activities related to HIV/AIDS, TB, malaria, health security, outbreak response, health systems strengthening, and capacity building. He began his service at the CDC as an Epidemic Intelligence Service Officer in 2000 in the Malaria Branch, where he spent nine years, including serving as the CDC team lead for the U.S. President's Malaria Initiative from 2006 to 2009. From 2009-2014, Dr. Newman served as Director of the Global Malaria Program at the World Health Organization (WHO) in Geneva. From 2014-2015, he was Managing Director for Policy and Performance at Gavi, the Vaccine Alliance, in Geneva, Switzerland, where he oversaw organizational strategy setting, performance metrics, market shaping, policy development, business planning, monitoring and evaluation, and risk management. Dr. Newman is a newly appointed member to the National Academies' Board on Life Sciences. He received his BA in English Literature from Williams College, his MD from Johns Hopkins University, and his MPH from the University of Washington. He completed his residency in Pediatrics at the University of Washington-Seattle Children's Hospital in 1996, and stayed on to complete a National Research Service Award fellowship in General Pediatrics in 1998. He has published 69 peer-reviewed articles in the field of infectious diseases.

Melissa Perry, ScD, MHS, is Professor of Environmental and Occupational Health and Interim Associate Dean for Research in the Milken Institute School of Public Health at the George Washington University (GWU). Before joining GWU, she spent 13 years on the Harvard School of Public Health's Department of Environmental Health faculty. As an environmental and occupational epidemiologist, Dr. Perry's research focuses on the health impacts of environmental chemicals with particular focus on reproduction, and on the prevention of occupational injuries and disease. Her lab at GW examines environmental impacts on sperm and male fertility. She is the Chair of the Board of Scientific Counselors for the National Center for Environmental Health/Agency for Toxic Substances and Disease Registry of the Centers for Disease Control and Prevention; co-chair of the National Academies of Sciences' Committee on Emerging Science for Environmental Decisions; a Fellow of

the *Collegium Ramazzini*; and a member of the Technical Advisory Board for the Center for Construction Research and Training (CPWR). She has served as President of the American College of Epidemiology and as a standing member of the National Institute for Occupational Safety and Health study section. She is currently an associate editor of *Environmental Health Perspectives* and an editorial board member of *Environmental Health*. She received her BA from the University of Vermont, and her MHS and ScD from The Johns Hopkins University School of Hygiene and Public Health.

Margaret R. Karagas, PhD, is Professor and Department Chair of Epidemiology at the Dartmouth College Geisel School of Medicine, and Director of the Children's Environmental Health and Disease Prevention Research Center and Center of Molecular Epidemiology at Dartmouth. She also currently leads a project in the Dartmouth Superfund Program. Dr. Karagas' research encompasses interdisciplinary studies to illuminate the etiology of human cancers, along with adverse pregnancy and children's health outcomes. Her work seeks to identify emerging environmental exposures, host factors and mechanisms that impact health from infancy to adult life, and to apply novel methods and technologies to understand disease pathogenesis. Among her current investigations are population-based studies of the temporal increases in the incidence rates keratinocyte cancers in the US and the contribution of widespread exposures such as indoor tanning, as well as drinking water contaminants. More recently, she established a cohort of pregnant women and their offspring in New Hampshire to assess the sources and potential health impacts of arsenic and other factors, i.e., on childhood infection, allergy/atopy, growth and neurodevelopment through the Children's Center. The cohort entails multiple collaborative studies of exposure biomarkers, individual susceptibility, and biological response to environmental agents including the developing microbiome and immune response. Dr. Karagas is a member of the standing committee, ESEHD, that this activity stems from. Dr. Karagas received her PhD from the University of Washington.

Gary L. Ginsberg, PhD, is a toxicologist for the Connecticut Department of Public Health and a lecturer at the Yale School of Public Health. He serves on a number of national committees including US EPA's Science Advisory Board (2008-present) and the National Academies' Biomonitoring committee (2004-2006), USEPA Risk Methods committee which produced Science and Decisions (2006-2008), and Inorganic Arsenic Risk Assessment committee (2012-2015). He also served on USEPA's Children's Health Protection Advisory Committee (2004-2009) and has been an external reviewer on a number of USEPA IRIS documents. Dr. Ginsberg has been called on by other federal agencies to provide reviews including OSHA (silica workplace standard), CPSC (cadmium in children's jewelry) and FDA (dental amalgam). His risk assessments on fish contaminants, synthetic turf fields, acrylamide, cadmium, and assessments pertaining to risks in children and those with genetic polymorphisms have been published in peer reviewed journals. Dr. Ginsberg co-authored a book for the lay public called "What's Toxic, What's Not" (Berkeley Books, 2006). Dr. Ginsberg is a member of the standing committee, ESEHD, that this activity stems from.

Meghan Frost Davis, PhD, DVM, is currently an assistant professor at Johns Hopkins University's Bloomberg School of Public Health. As a molecular epidemiologist and an environmental microbiologist, Dr. Davis studies the interface of bacteria and hosts to reduce microbe-mediated

disease in humans and animals. Her work applies the principles of one health and microbial ecology, evaluating target microbes and bacterial genes specifically and the larger microbial community (microbiome) broadly. She also evaluates non-infection outcomes, specifically asthma, from exposure to bacterial agents and their toxic products. Designing and testing interventions to combat the rise of bacterial antimicrobial resistance and both infection and non-infection outcomes related to microbial exposures in a one health context is the goal of her research career. Dr. Davis earned her DVM from the University of California, Davis followed by her MPH and PhD from Johns Hopkins Bloomberg School of Public Health.

John Vandenberg is Director of the Research Triangle Park Division of the National Center for Environmental Assessment at the US Environmental Protection Agency. He is responsible for leadership, planning and oversight of EPA's Integrated Science Assessments for the major (criteria) air pollutants and Integrated Risk Information System (IRIS) assessments for high priority hazardous air pollutants. He began working at EPA in 1984, and was responsible for performing national-scale exposure and health risk assessments for numerous hazardous air pollutants. Following a year on assignment from EPA to the State of California to help develop risk assessment guidelines, he joined EPA's Office of Research and Development as Director of EPA's Research to Improve Health Risk Assessments program. In recent years he served as EPA's first National Program Director for particulate matter research and as acting director of EPA's Human Studies Division, and Experimental Toxicology Division. In recent years Dr. Vandenberg was Associate Director for Health at NCEA, where he had oversight responsibilities for much of EPA's health risk assessment activities. Dr. Vandenberg has been a consultant to the World Health Organization and has represented EPA in scientific meetings in Europe, South America, Africa and Asia, and he serves on numerous scientific advisory committees. In 2006, he was elected a Fellow of the Society for Risk Analysis. He is an adjunct professor at the Nicholas School of the Environment at Duke University and since 1991 he has taught a graduate-level course in air quality management. He received his MS and PhD from Duke University in biophysical ecology and his B.A from the College of Wooster, Ohio.

John M. Balbus, MD, MPH, serves as a senior advisor to the Director on public health issues and as NIEHS liaison to its external constituencies, stakeholders, and advocacy groups. He also leads NIEHS efforts on climate change and human health. In this capacity he serves as HHS principal to the U.S. Global Change Research Program, for which he also co-chairs the Interagency Cross-Cutting Group on Climate Change and Human Health. Dr. Balbus' background combines training and experience in clinical medicine with expertise in epidemiology, toxicology, and risk sciences. He has authored studies and lectures on global climate change and health, transportation-related air pollution, the toxic effects of chemicals, and regulatory approaches to protecting susceptible subpopulations. Before joining the NIEHS, Dr. Balbus was Chief Health Scientist for the non-governmental organization Environmental Defense Fund. He served on the faculty of The George Washington University, where he was founding Director of the Center for Risk Science and Public Health, founding co-Director of the Mid-Atlantic Center for Children's Health and the Environment, and Acting Chairman of the Department of Environmental and Occupational Health. He maintains an adjunct faculty appointment at the Johns Hopkins Bloomberg School of Public Health. Dr. Balbus

received his A.B. degree in Biochemistry from Harvard University, his M.D. from the University of Pennsylvania, and his M.P.H. from the Johns Hopkins School of Public Health. In addition to current membership on the National Academy of Medicine Roundtable on Environmental Health Sciences, Research and Medicine, Dr. Balbus has also served as a member of the EPA Science Advisory Board, the National Research Council's Board on Environmental Studies and Toxicology and the EPA Children's Health Protection Advisory Committee. He is a member of the American College of Physicians, the American Public Health Association, and the Society of Toxicology.

Joshua P. Rosenthal is a Senior Scientist at the Fogarty International Center of the U.S. National Institutes of Health (NIH). He is an ecologist with a longstanding interest in the integration of public health, environment, and international development. Dr. Rosenthal leads NIH research and policy activities in Household Air Pollution research, including the Clean Cooking Implementation Science Network, and a multi-national trial to define the health benefits achievable through a clean cooking intervention in low and middle income countries. He founded and co-leads the NIH Climate and Health working group, is a project scientist on the NIH-CDC-IDRC supported GEOHealth program (Global Environmental and Occupational Health) and is the NIH Management lead for the Global Alliance for Chronic Diseases. Dr. Rosenthal completed his Ph.D. and post-doctoral research at the University of California, Berkeley. In 2011, Dr. Rosenthal was a Senior Fulbright Fellow at the University of Buenos Aires, Argentina and has since served as the Deputy Director of the Fogarty International Center and Director of the Division of International Training and Research. Dr. Rosenthal has authored a wide variety of technical, policy and popular publications, including research reports, research topic reviews, global health program analyses, editorials, magazine articles and one edited book, and is an Executive Editor for the journal EcoHealth.

David A. Savitz, NAM, is Professor of Epidemiology in the Brown University School of Public Health, with a joint appointment in Obstetrics and Gynecology in the Alpert Medical School. His epidemiological research has addressed a wide range of many important public health issues including environmental hazards in the workplace and community, reproductive health outcomes, and environmental influences on cancer. He has done extensive work on health effects of nonionizing radiation, pesticides, drinking water treatment by-products, and perfluorinated compounds. He has served as editor at the American Journal of Epidemiology and as a member of the Epidemiology and Disease Control-1 study section of the National Institutes of Health and currently is an editor at Epidemiology. He was President of the Society for Epidemiologic Research and the Society for Pediatric and Perinatal Epidemiologic Research and North American Regional Councilor for the International Epidemiological Association. Dr. Savitz is a member of the National Academy of Medicine. From 2013-2017 he served as Vice President for Research at Brown University. He started at Brown in 2010 from Mount Sinai School of Medicine, where he had served as the Charles W. Bluhdorn Professor of Community and Preventive Medicine and Director of Disease Prevention and Public Health Institute since 2006. Earlier, he taught and conducted research at the University of North Carolina School of Public Health and at the Department of Preventive Medicine and Biometrics at the University of Colorado School of Medicine. Dr. Savitz received his undergraduate training in Psychology at Brandeis University, a Master's degree in Preventive

Medicine at Ohio State University in 1978, and a PhD in Epidemiology from the University of Pittsburgh Graduate School of Public Health in 1982.